

Carabin Antibody

Catalog # ASC10555

Product Information

Application	WB, E, IHC-P
Primary Accession	Q8IV04
Other Accession	NP_940919 , 38348348
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	49712
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Carabin antibody can be used for detection of Carabin by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL.

Additional Information

Gene ID	374403
Other Names	Carabin, TBC1 domain family member 10C, TBC1D10C
Target/Specificity	TBC1D10C;
Reconstitution & Storage	Carabin antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	Carabin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TBC1D10C
Function	Inhibits the Ras signaling pathway through its intrinsic Ras GTPase-activating protein (GAP) activity. Acts as a negative feedback inhibitor of the calcineurin signaling pathway that also mediates crosstalk between calcineurin and Ras.
Tissue Location	Most abundant in spleen and peripheral blood leukocytes.

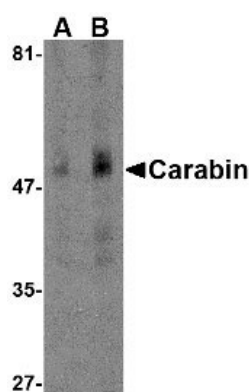
Background

Carabin Antibody: Antigen binding by the T-cell receptor (TCR) is one of the critical first steps in the immune response, triggering a cascade of signaling pathways that ultimately lead to T-cell activation. Screening a yeast two-hybrid screen of a human T-cell cDNA library with calcineurin, a protein phosphatase involved in multiple signaling pathways including T-cell activation, resulted in the identification of Carabin, a member of the TBC1 domain family of proteins, as a calcineurin-binding protein. Unlike other members of the TBC1 domain protein family which are thought to have a role in regulating cell growth and differentiation, further experiments demonstrated that Carabin is part of a negative regulatory loop for the intracellular TCR signaling pathway as well as an inhibitor of the Ras signaling pathway, suggesting that Carabin may also mediate crosstalk between calcineurin and Ras. Carabin antibody does not recognize TBC1D10A or TBC1D10B. Carabin is known to exist in multiple isoforms.

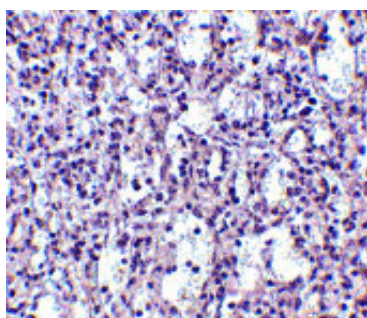
References

Weil R and Israel A. Deciphering the pathway from the TCR to NF-kappaB. *Cell Death Differ.*2006; 13:826-33.
Im SH and Rao A. Activation and deactivation of gene expression Ca^{2+} /calcineurin-NFAT-mediated signaling. *Mol. Cells*2004; 18:1-9.
Pan F, Sun L, Kardian DB, et al. Feedback inhibition of calcineurin and ras by a dual inhibitory protein carabin. *Nature*2007; 445:433-6.
White RA, Pasztor LM, Richardson PM, et al. The gene encoding TBC1D1 with homology to the tre-2/USP6 oncogene, Bub2, and cdc16 maps to mouse chromosome 5 and human chromosome 4. *Cytogenet. Cell Genet.*2000; 89:272-5.

Images



Western blot analysis of Carabin in human spleen tissue lysate with Carabin antibody at (A) 1 and (B) 2 $\mu\text{g/mL}$.



Immunohistochemistry of Carabin in human spleen tissue with Carabin antibody at 2.5 $\mu\text{g/mL}$.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.